We present the case of a patient who harbored a chronic optic chiasm abscess caused by a previous bout of brucellosis and subsequent meningoencephalitis. This patient was successfully managed with stereotactic aspiration and antibiotic treatment.

This 60-year-old woman, whose occupation was farming, presented with gradual visual loss, headaches, and a history of successfully treated *Brucella* meningoencephalitis. Magnetic resonance (MR) images disclosed a chiasmal multilobulated ring-enhancing lesion with frontal lobe extension (Fig. 1 left). During stereotactic aspiration, 20 ml of pus was collected. Findings of Gram staining and cultures were negative. Blood fluorescent antibody test results for *Brucella melitensis* were positive. A 3-month regimen of doxycycline (100 mg two times per day) and rifampin (300 mg two times per day) was administered. At follow-up review, the patient’s vision had improved and the results of a repeated MR image disclosed a marked reduction in the size of the mass (Fig. 1 right).

Including our present report, to date there have been eight patients in whom intracranial abscesses have developed subsequent to brucellosis.1–5 The male/female patient ratio in this group is 5:3 (five of whom were children). All but one patient had a history of systemic brucellosis, which varied in duration from 1 month to 2 years, and six of the eight patients had a history of unpasteurized dairy product consumption. Pus culture findings revealed the presence of *Brucella melitensis* in four of six patients, and blood culture results were positive in two of five patients. Blood serum titers varied between 1:320 and 1:5120. Cerebrospinal fluid (CSF) titers were positive in one of three patients. The locations of the abscesses included: frontal/chiasmatic, subdural, and multiple sites in one patient each and lobar and cerebellar in two patients each; the location was not reported in one patient. Surgical therapy was offered to six of the eight patients. In none of the previous papers was stereotactic aspiration of the abscess reported. All patients underwent antibiotic therapy for at least 6 weeks. There was no death or major disability.

The common sources of *B. melitensis* infection are unpasteurized milk, milk products, and occupational contact. Involvement of the central nervous system due to brucellosis is rare, and brain abscess is exceedingly rare. In endemic areas, brucellosis must be considered in the differential diagnosis of patients with suspected space-occupying lesions and concomitant fever. The *Brucella* serological agglutinin test should be included in the investigation of suspected cases.

To our knowledge this is the first reported patient in whom: 1) a chronic intracerebral abscess developed as a result of previous systemic brucellosis and subsequent *Brucella* meningoencephalitis; 2) such a lesion was demonstrated by MR imaging; and 3) the abscess was treated successfully with stereotactic aspiration and antibiotic therapy.

References